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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/056,688 | 01/24/2002 | Eric Gregory Oettinger | TI-33552 | 1034 |
| 23494 | 7590 | 11/03/2005 | EXAMINER | |
| TEXAS INSTRUMENTS INCORPORATED | | | BELLO, AGUSTIN | |
| P O BOX 655474, M/S 3999 | | | ART UNIT | |
| DALLAS, TX 75265 | | | PAPER NUMBER | |
| | | | 2633 | |

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|-------------------------------|----------------------------------|--|
| Office Action Summary | Application No. 10/056,688 | Applicant(s) OETTINGER ET AL. | |
| | Examiner Agustin Bello | Art Unit 2633 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2005.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-18 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-13 and 15-18 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>8/22/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 12 and are rejected under 35 U.S.C. 103(a) as being unpatentable over Gfeller (U.S. Patent No. 4,402,090) in view of Wissinger (U.S. Patent No. 5,592,320).

Regarding claim 1, Gfeller teaches receiving a light beam at the photodetector (reference numeral 48 in Figure 7), demodulating data carried on the received light beam (reference numeral 49 in Figure 7); parsing the demodulated data (reference numeral 53 in Figure 7); determining an origin of the demodulated data based on the parse (reference numeral 51 in Figure 7); and permitting signal lock if the origin of the received light beam is different from the optical wireless link containing the photodetector (column 6 line 64 – column 7 line 25). Gfeller differs from the claimed invention in that Gfeller fails to specifically teach providing a steerable light beam transmitter. However, However, Wissinger, in the same field of satellite communication, teaches that this concept is well known in the art (e.g. “gimbal mirror” throughout Wissinger). One skilled in the art would have been motivated to include a controllable mirror in the device of Gfeller in order to generate a predetermined scan pattern. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to include a steerable light beam transmitter as taught by Wissinger in the device of Gfeller.

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Regarding claim 2, Gfeller teaches the step of appending a unique identifier to data being transmitted on the light beam prior to transmission (e.g. "Origin Address" of column 4 lines 1-11).

Regarding claim 3, Gfeller teaches that the unique identifier is a network address of the optical wireless link transmitting the data (e.g. "Origin Address" of column 4 lines 1-11).

Regarding claim 4, Gfeller teaches that the network address is unique to the optical wireless link (inherent).

Regarding claim 5, Gfeller teaches that the unique identifier is a uniquely calculated data value that is ensured of being unique to the optical wireless link transmitting the data (inherent).

Regarding claim 6, Gfeller teaches that the parsing step comprises searching for the presence of the unique identifier in the demodulated data (reference numeral 51, 53 in Figure 7).

Regarding claim 7, Gfeller teaches that the determining step comprises: finding that the origin is different from the steerable light beam if the unique identifier is absent from the demodulated data (e.g. if the unique identifier is absent, then comparator 69 in Figure 7 will not produce a match); and finding that the origin is the same as the steerable light beam if the unique identifier is present in the demodulated data (e.g. if the unique identifier is present, then comparator 69 in Figure 7 will produce a match when they are the same).

Regarding claim 8, Gfeller teaches the step of monitoring data transmitted on the light beam prior to transmission (reference numeral 29 in Figure 7).

Regarding claim 9, Gfeller teaches that the parsing step comprises comparing the demodulated data with the monitored data (reference numeral 69 in Figure 7).

Regarding claim 10, Gfeller teaches that finding that the origin is different from the steerable light beam if the demodulated data and the monitored data are different (e.g. do not match reference numeral 79 in Figure 7); and finding that the origin is the same as the steerable light beam if the demodulated data and the monitored data are the same (e.g. do match reference numeral 79 in Figure 7).

Regarding claim 11, Gfeller teaches the step of ignoring the received light beam (e.g. no output from buffer 55 in Figure 7) if the origin of the demodulated data was the same as steerable light beam, subsequent to the determining step.

Regarding claim 12, Gfeller differs from the claimed invention in that Gfeller fails to specifically teach retrieving positional data from the demodulated data; transmitting the positional data on a second light beam; and aligning the light transmitter to the positional data received from the demodulated data. However, Wissinger, in the same field of satellite communication, teaches that this concept is well known in the art (see abstract of Wissinger). One skilled in the art would have been motivated to retrieve positional data from the demodulated data; transmit the positional data on a second light beam; and align the light transmitter to the positional data received from the demodulated data in order to improve acquisition and tracking of optical beams communication between two satellites. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to retrieve positional data from the demodulated data; transmit the positional data on a second light beam; and align the light transmitter to the positional data received from the demodulated data in order to improve acquisition and tracking of optical beams communication between two satellites.

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Regarding claim 13, Gfeller teaches a light beam transmitter (reference numeral 19 in Figure 7) configured to transmit a first light beam; a photodetector (reference numeral 48 in Figure 7) configured to receive a second light beam; and a processing element (reference numeral 23, 51, 53, 65, 67, 69 in Figure 7) coupled to the light beam transmitter and the photodetector, the processing element containing circuitry to detect the origin of data received on the second light beam, a reflection detection unit (reference numeral 49, 51, 53, 65, 69, and 71 in Figure 7) coupled to the photodetector, the reflection detection unit containing circuitry to detect the origin of the data received on the second light beam, and a memory (reference numeral 55 in Figure 7) coupled to the reflection detection unit, the memory to store the received data. Gfeller differs from the claimed invention in that Gfeller fails to specifically teach providing a steerable light beam transmitter. However, However, Wissinger, in the same field of satellite communication, teaches that this concept is well known in the art (e.g. “gimbal mirror” throughout Wissinger). One skilled in the art would have been motivated to include a controllable mirror in the device of Gfeller in order to generate a predetermined scan pattern. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to include a steerable light beam transmitter as taught by Wissinger in the device of Gfeller.

Regarding claim 15, Gfeller teaches that the memory (reference numeral 65 in Figure 7) further stores a unique identifier used to detect the origin of the received data.

Regarding claim 16, Gfeller teaches that the memory further stores monitored data (reference numeral 67 in Figure 7) from transmissions originating from the optical wireless link.

Regarding claim 17, Gfeller teaches a reflection detection unit (reference numeral 51 in Figure 7) coupled to the photodetector, the reflection detection unit containing circuitry to detect the origin of the data received on the second light beam; and a memory (reference numeral 65 in Figure 7) coupled to the reflection detection unit, the memory to store the received data.

Regarding claim 18, Gfeller differs from the claimed invention in that Gfeller fails to specifically teach that the first light beam is steered by a controllable mirror. However, However, Wissinger, in the same field of satellite communication, teaches that this concept is well known in the art (e.g. “gimbal mirror” throughout Wissinger). One skilled in the art would have been motivated to include a controllable mirror in the device of Gfeller in order to generate a predetermined scan pattern. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to include a controllable mirror as taught by Wissinger in the device of Gfeller.

Response to Arguments

3. Applicant's arguments filed 8/22/05 have been fully considered but they are not persuasive.
4. In response to applicant's arguments, the recitation “preventing signal lock onto a reflected light beam received by a photodetector of an optical wireless link, wherein the reflected light beam was transmitted by a transmitter of the same optical wireless link” has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See

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In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

5. In response to applicant's argument that the cited references fail to teach the claimed invention, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

6. In response to applicant's argument that the cited reference is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the cited reference clearly lies in the field of applicant's endeavor.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Agustin Bello whose telephone number is (571) 272-3026. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB


AGUSTIN BELLO
PRIMARY EXAMINER